

In the Claims:

Sub G¹ Please amend claims 22, 26, 28, 30, 32, and 34 as follows:

22. (Four Times Amended) A microelectronic device, comprising:

a microelectronic substrate having an upper surface;

(1) a gate structure including a gate oxide layer formed on the upper surface of the substrate, a first gate layer formed on the gate oxide layer, and an adhesion layer formed on the first gate layer, the gate structure having a trench at least partially disposed therein and extending into the substrate substantially perpendicularly to the upper surface of the substrate; and

a field oxide layer at least partially in the trench, the field oxide layer having sides that are substantially straight and substantially parallel from a bottom of the trench to a top surface of the field oxide layer, the substantially straight sides not contacting the gate oxide layer and extending upwardly from the trench substantially perpendicularly to the upper surface of the substrate and not extending laterally from the trench over the upper surface of the substrate, the field oxide layer having a field oxide level between the level of the upper surface of the substrate and the level of an upper surface of the first gate layer.

Sub G³ 26. (Thrice Amended) A microelectronic device, comprising:

(2) a microelectronic substrate having a trench formed in a surface thereof, the trench extending into the substrate substantially perpendicularly to the surface of the substrate;

a field oxide in the trench, the field oxide having sides that are substantially straight and substantially parallel from a bottom of the trench to a top surface of the field oxide, the substantially straight sides projecting outwardly from the trench beyond the surface of the substrate substantially perpendicularly to the surface of the substrate and not extending laterally from the trench over the surface of the substrate; and

a component formed on the field oxide, the component extending from the field oxide by a height at least equal to approximately two times a height that the field oxide extends from the trench beyond the surface of the substrate.

Sub 9 4

28. (Thrice Amended) A microelectronic device, comprising:

a microelectronic substrate having a trench formed in a surface thereof, the trench extending into the substrate substantially perpendicularly to the surface of the substrate;

a field oxide in the trench, the field oxide having sides that are substantially straight and substantially parallel from a bottom of the trench to a top surface of the field oxide, the substantially straight sides extending from the trench beyond the surface of the substrate substantially perpendicularly to the surface of the substrate and not extending laterally from the trench over the surface of the substrate; and

a gate structure formed on the substrate, the gate structure extending from the field oxide by a height at least equal to approximately two times a height that the field oxide extends from the trench beyond the surface of the substrate, the field oxide not contacting any portion of the gate structure.

Sub 9 5

30. (Thrice Times Amended) A microelectronic device, comprising:

a microelectronic substrate having a recess formed in a surface thereof, the recess extending into the substrate substantially perpendicularly to the surface of the substrate; and

a field oxide deposited in the recess, the field oxide having sides that are substantially straight and substantially parallel from a bottom of the recess to a top surface of the field oxide, the substantially straight sides extending substantially perpendicularly to the surface of the substrate from the recess beyond the surface of the substrate by a height which is less than or equal to approximately one half of a height of a component formed on the field oxide, the field oxide not extending laterally from the recess over the surface of the substrate.

Sub 9 6

32. (Four Times Amended) A microelectronic device, comprising:

a microelectronic substrate having a trench formed in a surface thereof;

a gate structure formed on the substrate, the gate structure including a gate oxide layer formed on the microelectronic substrate, a first gate layer formed on the gate oxide layer, an adhesion layer formed on the first gate layer, and a conductive layer formed on the adhesion layer; and

a field oxide deposited in the trench, the field oxide extending substantially perpendicularly to the surface of the substrate from the trench beyond the surface of the substrate by a height which is less than or equal to approximately one half of a height of the gate structure formed on the substrate, the field oxide having sides that are substantially straight and substantially parallel from a bottom of the trench to a top surface of the field oxide, the substantially straight sides not contacting the gate oxide layer and not extending laterally from the recess over the surface of the substrate.

34. (Thrice Amended) A microelectronic device, comprising:

a microelectronic substrate having a surface with a trench formed therein;

a field oxide within the trench and having sides that are substantially straight and substantially parallel from a bottom of the trench to a top surface of the field oxide, the substantially straight sides projecting therefrom substantially perpendicularly to the surface of the substrate by a height which is small enough to prevent the formation of spacers adjacent the field oxide, the field oxide not extending laterally from the trench over the surface of the substrate; and

a component formed on the field oxide.

REMARKS

Claims 22 and 24-37 are pending in the application. In the Office Action dated August 15, 2001, the Examiner (1) rejected claim 34 under 35 USC § 102(b) as being anticipated by Shimbo (U.S. 4,980,306); (2) rejected claims 22 and 28-29 under 35 USC § 102(b) as being anticipated by Nakajima et al. (U.S. 5,329,482); and (3) rejected claims 22 and 24-37 under 35 USC § 103(a) as being unpatentable over Park et al. (U.S. 5,296,400) in view of Manning (U.S. 5,177,028); and (4) rejected claims 22, 24, 25, 28, 29, 32-37 under 35 USC § 103(a) as being unpatentable over Noguchi et al. (U.S. 4,935,802) in view of Manning.

Applicants respectfully request reconsideration of the application in view of the foregoing amendments and the following remarks. Some of the technical differences between the applied references and embodiments of the invention will now be discussed. Of course, these